| Inde | ex of Cl | laims |
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|      |          |       |

| Application/ | Control No. |
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10/630,222

Date

Examiner

Shih-wen Hsieh

Applicant(s)/Patent under Reexamination

TAKAGI ET AL.

Art Unit

2861

| <b>√</b> | Rejected |
|----------|----------|
| ,        | Deiseted |

| - | (Through numeral)<br>Cancelled |
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| + | Restricted                     |

Claim

| N | Non-Elected  |
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| ı | Interference |

| A | Appeal   |
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| 0 | Objected |

|              |  | ш            |          |  |               |  |              | 1        |   |          |  |  |
|--------------|--|--------------|----------|--|---------------|--|--------------|----------|---|----------|--|--|
| Cla          | im   | Date         |          |  |               |  |              |          |   |          |  |  |
| Final        | Original                                     | 11/10/05     |          |  |               |  |              |          |   |          |  |  |
|              | 1  |              |          |  |               |  |              |          |   |          |  |  |
|              | 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8         |              |          |  |               |  |              |          |   |          |  |  |
|              | 3  |              |          |  |               |  |              |          |   |          |  |  |
|              | 4  |              |          |  |               |  | _            |          |   | Ш        |  |  |
|              | 5  |              |          |  |               |  |              |          |   | Ш        |  |  |
|              | 6  |              |          |  |               |  |              |          | _   |          |  |  |
|              | 7  |              |          |  |               | _  | _            |          | _   | $\dashv$ |  |  |
|              | 8  |              |          |  |               |  |              |          |   |          |  |  |
|              | 9  |              | _        | -  |               |  |              |          | Ш   | $\dashv$ |  |  |
|              | 10   |              |          |  |               |  | _            |          | Н   |          |  |  |
| $\vdash$     | 11   | -            | _        | $\vdash$   |               | Н  | $\vdash$     |          | $\vdash$  | $\vdash$ |  |  |
| -            | 10<br>11<br>12<br>13<br>14<br>15<br>16<br>17 | =            |          | $\vdash$   | _             | $\vdash$   | $\vdash$     | _        | $\vdash$  | $\vdash$ |  |  |
| 1_           | 14   | <del>-</del> | -        | $\vdash$   | -             | $\vdash$   |              | -        | $\vdash$  | $\dashv$ |  |  |
| 2            | 15   | =            | -        | $\vdash$   |               | H  | -            |          | H   | $\vdash$ |  |  |
| 3            | 16   | =            | _        |  | -             |  |              |          |   |          |  |  |
| 3 4          | 17   | =            | _        |  |               |  |              | _        |   | $\Box$   |  |  |
| H            | 18   | Т            |          |  | Г             |  |              |          |   |          |  |  |
|              | 19   |              |          |  | $\overline{}$ | $\vdash$   |              |          |   | П        |  |  |
|              | 19<br>20<br>21<br>22<br>23                   |              |          |  |               |  |              |          |   |          |  |  |
|              | 21   |              |          |  |               |  |              |          |   |          |  |  |
|              | 22   |              |          |  |               |  |              |          |   |          |  |  |
|              | 23   |              |          |  |               |  |              |          | $ldsymbol{ld}}}}}}$ |          |  |  |
|              | 24<br>25                                     | <u> </u>     |          | L  |               |  |              |          |   |          |  |  |
| <u> </u>     | 25   | <u> </u>     |          | _  | _             | _  |              | <u> </u> |   | L.,      |  |  |
| -            | 26<br>27<br>28<br>29                         | ┞            |          | <u> </u>   | <u> </u>      | <u> </u>   | L.           | <u> </u> | _   |          |  |  |
|              | 27   | ļ            |          |  | <u> </u>      | <u> </u>   | L            | ├        | ⊢   |          |  |  |
|              | 28   | ⊬            |          | -  | <u> </u>      | <u> </u>   | H            | ├-       | ├   | Н        |  |  |
|              | 29   | ┝            |          | _  | $\vdash$      | -  | _            | ⊢        | -   | -        |  |  |
| <u> </u>     | 30<br>31                                     | ┢            | $\vdash$ |  | ⊢             | <del> </del>                                     |              | $\vdash$ | -   | Н        |  |  |
| _            | 31   | $\vdash$     | $\vdash$ | ┝  | $\vdash$      | $\vdash$   | <del> </del> | $\vdash$ | $\vdash$  | $\vdash$ |  |  |
| <del> </del> | 32<br>33                                     | H            | $\vdash$ | <del>                                     </del> | $\vdash$      | $\vdash$   | -            | $\vdash$ | -   | Н        |  |  |
| $\vdash$     | 34   | $\vdash$     |          | $\vdash$   |               | $\vdash$   | $\vdash$     | Т        | $\vdash$  | Н        |  |  |
|              | 35   | T            | Г        |  | Т             | <del>                                     </del> |              |          |   |          |  |  |
|              | 36   | Г            | <u> </u> |  |               | Γ  | Ī            |          |   |          |  |  |
|              | 37   |              |          |  |               |  |              |          |   |          |  |  |
|              | 38<br>39                                     |              |          |  |               |  |              |          |   |          |  |  |
|              | 39   |              |          | _  |               | <u> </u>   | L            | _        | L_  |          |  |  |
|              | 40   | <u> </u>     |          |  | _             |  | _            | <u> </u> | <u>L</u>  |          |  |  |
| <u></u>      | 41   | _            | L        | L  | _             |  | <u> </u>     | _        | <b> </b> _  | $\sqcup$ |  |  |
|              | 42   | _            | _        | <u> </u>   |               | <u> </u>   | _            | _        | <u> </u>  | <u> </u> |  |  |
| <u> </u>     | 43   | $\vdash$     | L        | <u> </u>   |               | <u> </u>   | _            | _        | _   | <u> </u> |  |  |
|              | 44   | <del> </del> | <u> </u> | <del> </del>                                     | -             | $\vdash$   | $\vdash$     | -        | $\vdash$  |          |  |  |
| <u> </u>     | 45   | +            | $\vdash$ | -  | $\vdash$      | $\vdash$   | ⊢            | $\vdash$ | -   | $\vdash$ |  |  |
|              | 46   | +            | $\vdash$ | ├-   | $\vdash$      | -  | -            | -        | -   | $\vdash$ |  |  |
| $\vdash$     | 47   | ╀            | $\vdash$ | ├-   | -             | $\vdash$   | $\vdash$     | ├        | +   | $\vdash$ |  |  |
| -            | 48<br>49                                     | +-           | +        | 1  | ╁             | ╁  | ├            | $\vdash$ | +   | ├        |  |  |
| -            | <u>49</u>                                    | ╁            | $\vdash$ | <del> </del> —                                   | ├             | -  | ⊢            | ╁        | -   | ╁        |  |  |

| all     | 11       | _  |          |                |                | Jak      | <u> </u>   | _        |  | _            |   |             | 11111    |  |          |  |  |                | _  |  |                | -  |
|---------|----------|--|----------|----------------|----------------|----------|--|----------|--|--------------|---|-------------|----------|--|----------|--|--|----------------|--|--|----------------|--|
|         | Original | 11/10/05   |          |                |                |          |  |          |  |              |   | Final       | Original |  |          |  |  |                |  | :  |                |  |
| +       | 1        |  |          |                |                |          |  |          |  | $\dashv$     |   |             | 51       | $\neg$   |          | $\neg$   |  |                |  |  | 一              | $\dashv$   |
| +       | 2        |  | Н        | _              | _              |          |  |          |  |              |   |             | 51<br>52 | -  |          |  |  |                |  | _  | _              | 一  |
| +       | 3        |  | $\vdash$ |                | _              |          | _  |          |  | $\dashv$     |   |             | 53       |  |          |  |  |                |  | _  | 一              | 一  |
| +       | 4        | $\vdash$   |          | $\vdash$       | $\vdash$       |          | $\dashv$   | -        | $\vdash$   | $\dashv$     |   |             | 54       | Н  | -        | $\neg$   |  |                | Н  | $\neg$   |                | ㅓ  |
| ╁       | 5        |  | Н        |                | $\vdash$       | _        | $\dashv$   |          | -  | $\dashv$     |   |             | 55       | Н  |          | _  | _  |                |  |  | $\dashv$       | $\dashv$   |
| +       | 6        | -  | $\vdash$ |                |                |          | -  |          |  | $\dashv$     |   |             | 56       | Н  | -        |  | -  | -              | $\vdash$   |  | 一              | $\dashv$   |
| ╬       | 7        |  |          |                | _              |          | -  | Н        | $\dashv$   |              |   |             | 57       | Н  |          | _  |  |                | Н  | ᅱ  | -              | $\dashv$   |
| ╀       |          |  |          |                |                | _        | _  | _        | -  | -            |   |             | 58       | $\vdash$   | $\vdash$ |  |  |                | Н  | ᅱ  | -              | $\dashv$   |
| +       | 8        |  |          | _              | _              |          |  | -        | $\vdash$   |              |   |             | 59       | H  | Н        |  | _  | _              | Н  | -  | $\neg$         | $\dashv$   |
| +       | 9        |  | -        | _              | _              |          |  |          | $\vdash$   |              |   |             | 60       |  |          |  | _  | _              | Н  | -  | $\dashv$       | $\dashv$   |
|         | 10       | _  | _        |                | _              |          | _  | -        | Н  |              |   |             | 61       |  |          |  | _  | _              | Н  | $\neg$   | -              | -  |
| +       | 11       | _  |          |                |                |          |  |          |  |              |   |             |          |  |          |  |  | _              | Н  | -  |                |  |
| +       | 12       | _  |          |                | _              | _        | Н  | $\Box$   | _  | -            |   |             | 62       | _  |          | _  | _  | -              | Н  | -  | -              |  |
| 4       | 13       | =  |          |                | _              |          |  |          | _  | Н            |   |             | 63       | $\vdash$   |          |  |  | _              | Н  | _  | 1              |  |
| 4.      | 14       | _  |          |                |                |          |  |          |  |              |   |             | 64       | _  |          |  |  | _              | H  |  |                |  |
| 4       | 15       | =  |          |                | L_             | _        |  |          |  |              |   |             | 65       | $\vdash$   | _        | _  |  |                | Н  |  | $\dashv$       |  |
| _       | 16       | =  | _        |                | _              |          |  |          |  |              |   |             | 66       | L  |          |  | _  |                | Н  |  |                | $\dashv$   |
|         | 17       | =  |          |                |                | L_       | $ldsymbol{ldsymbol{ldsymbol{eta}}}$              |          |  |              |   |             | 67       | _  |          | _  |  | $oxed{oxed}$   |  |  | _              | $\dashv$   |
| $\perp$ | 18       |  |          |                | L              | _        |  | _        |  |              |   |             | 68       | L  |          | _  | L  | <b> </b> -     |  |  | _              | _  |
|         | 19       | _  |          |                |                |          |  |          |  |              |   |             | 69       | _  |          |  |  |                | lacksquare                                       |  | _              |  |
|         | 20       |  |          |                |                | _        | _  |          |  |              |   |             | 70       | _  | _        |  |  | <u>L</u>       | _  |  |                |  |
|         | 21       |  |          |                |                |          |  |          |  | $oxed{oxed}$ |   |             | 71       | L  |          |  | <u> </u>   |                | Ш  |  | _              |  |
| I       | 21<br>22 |  |          |                |                |          |  |          | L.   | _            |   |             | 72       | L  |          |  | L.   |                |  |  |                |  |
| 1       | 23       |  |          |                |                |          |  |          |  |              |   |             | 73       |  |          |  |  |                |  |  |                |  |
| Т       | 24       |  |          |                |                |          |  |          |  |              |   |             | 74       |  |          |  | L  | _              |  |  |                |  |
| T       | 25       |  |          |                |                |          |  |          |  |              |   |             | 75       |  |          |  | L.   |                |  |  |                |  |
| Т       | 26       |  |          |                |                |          |  |          |  |              |   |             | 76       | <u> </u>   |          |  | L  |                |  |  |                |  |
| T       | 27       |  |          |                |                |          |  |          |  |              |   |             | 77       |  |          |  |  |                |  |  |                |  |
| T       | 28       |  |          |                |                |          |  |          |  |              |   |             | 78       |  |          |  |  |                |  |  |                |  |
| $\top$  | 29       | Г  |          |                | Г              |          |  | Γ        | Π  | Г            |   |             | 79       |  |          |  |  |                |  |  |                |  |
|         | 30       |  |          |                |                |          |  |          |  |              |   |             | 80       |  |          |  |  |                |  |  |                |  |
|         | 31       |  | Г        | -              | T              | Т        |  | Г        |  |              |   |             | 81       | -  |          |  |  |                |  |  |                |  |
|         | 32       | Т  | Г        |                | T              | T        | $\vdash$   |          | Г  |              |   |             | 82       |  |          |  | Г  |                |  |  |                |  |
| ╅       | 33       |  | Г        | _              |                | 一        | -  |          | _  |              | ĺ |             | 83       |  |          |  |  |                |  |  |                |  |
| +       | 34       | $\vdash$   | $\vdash$ | -              | $\vdash$       | $\vdash$ | ┢  |          |  |              |   |             | 84       |  |          |  | _  |                |  |  |                |  |
|         | 35       | H  | $\vdash$ | -              |                |          | _  |          | _  |              |   |             | 85       | Г  |          | Г  | $I^-$  |                | Г  |  |                |  |
| +       | 36       | H  |          | _              |                | $\vdash$ | T  | <u> </u> | <del>                                     </del> |              | 1 |             | 86       | Г  |          |  |  |                |  |  |                |  |
|         | 37       | <del>                                     </del> | t        |                | _              | $\vdash$ | <del>                                     </del> |          | $\vdash$   |              | 1 |             | 87       |  |          |  | Т  |                |  |  |                |  |
|         | 38       | <del>                                     </del> | ╁        | -              | $\vdash$       | $\vdash$ | 1  |          |  |              | ŀ |             | 88       | Г  |          | T  | Т  | Г              |  | $\vdash$   |                |  |
| $^{+}$  | 39       | H  | ┢        |                | $\vdash$       | H        | -  |          | $\vdash$   | -            | 1 |             | 89       | ⇈  |          |  | <del>                                     </del> |                |  |  |                |  |
| ╁       | 40       | $\vdash$   | $\vdash$ | -              | $\vdash$       |          | ┢  | $\vdash$ | -  | $\vdash$     | ĺ |             | 90       | H  | Н        | <del>                                     </del> |  | 1              | T-   |  |                |  |
| +       | 41       | ├  | ⊢        | ├              | ┢              |          | ┢  | $\vdash$ | ⊢  | -            |   |             | 91       | <del>                                     </del> | $\vdash$ | $\vdash$   | 1  | ╁              | ┢  | $\vdash$   | _              |  |
| +       | 42       | -  | ┢        | -              | ╁╾             | -        | ┢━   | ┢╾       | ╁╾   | ╁─           | 1 | _           | 92       | <del> </del>                                     | -        | _  | $\vdash$   | ├─             | ┤  |  |                |  |
| +       |          | $\vdash$   | ┢        | $\vdash$       | -              | ┢        | ⊢  | ╁一       | ╁╌   | H            | 1 | $\vdash$    | 93       | ┢  | -        |  | -  | $\vdash$       | <del>                                     </del> | -  | _              | Н  |
| +       | 43       | $\vdash$   | $\vdash$ | -              | $\vdash$       | +-       | +-   | $\vdash$ | -  | $\vdash$     | 1 | <b></b> -   | 94       | $\vdash$   | -        | $\vdash$   | $\vdash$   | $\vdash$       | $\vdash$   | <del>  -  </del>                                 | <del> </del>   |  |
| +       | 44<br>45 | ├  | ₩        | -              | +-             | $\vdash$ | $\vdash$   | ╁        | $\vdash$   | ├            | 1 | $\vdash$    | 95       | $\vdash$   | $\vdash$ | -  | $\vdash$   | <del>  -</del> | <del>                                     </del> | $\vdash$   | $\vdash$       |  |
| +       |          | -  | $\vdash$ | -              | $\vdash$       | $\vdash$ | $\vdash$   | $\vdash$ | $\vdash$   | $\vdash$     | 1 |             | 96       | +-   | -        | $\vdash$   | $\vdash$   | ├-             | $\vdash$   | $\vdash$   | $\vdash$       | <del>                                     </del> |
| +       | 46       | Ͱ  | ⊢        | -              | ₩              | -        | -  | $\vdash$ | -  | $\vdash$     | 1 | ├─          | 97       | $\vdash$   | -        | +-   | 1  | +              | +  | <del>                                     </del> | $\vdash$       | $\vdash$   |
| 4       | 47       | ⊢  |          | <del> </del>   | ├-             | ⊢        | $\vdash$   | +-       | $\vdash$   | ├            | 1 |             |          | ╁  | -        |  | ┨  | $\vdash$       | +  | -  | $\vdash$       | $\vdash$   |
| 4       | 48       | <del>  -</del>                                   | 1        | <u> </u>       | <del> </del> — | ├-       | -  | $\vdash$ | $\vdash$   | <del> </del> | 1 | <u> </u>    | 98       | ┼  | $\vdash$ | ├-   | $\vdash$   | +-             | +-   | $\vdash$   | $\vdash$       |  |
| 4       | 49       | ⊢  | -        | <del> </del> — |                | -        | ₩  | ₩        | ├-   | ⊢            | 1 | <del></del> | 99       | 1-   | -        | -  | ⊢  | ┰              | ₩  | ├  | <del> </del> — | ╌  |
|         | 50       |  | L        | <u> </u>       |                | L_       | _  | Ц.       |  | <u> </u>     | J |             | 100      | L  | <u> </u> | I  | <u> </u>   |                | L  | <u> </u>   | Щ              | L  |

| Cla  | aim  | Date         |              |  |          |          |          |          |                    |                   |  |
|--|--|--------------|--------------|--|----------|----------|----------|----------|--------------------|-------------------|--|
|  |  |              |              | $\neg$   | Ť        | <u> </u> |          | _        | $\neg$             | $\dashv$          |  |
| Final  | Original   |              |              |  |          |          |          |          |                    |                   |  |
|  | 101<br>102   |              | i            |  |          |          |          |          |                    |                   |  |
|  | 102  |              |              |  |          |          |          |          |                    |                   |  |
|  | 103  |              |              |  |          |          |          |          |                    |                   |  |
|  | 104  | Ш            |              |  |          |          |          | _        |                    | _                 |  |
|  | 105  |              | _            |  |          |          |          |          |                    | Ш                 |  |
|  | 103<br>104<br>105<br>106                             |              | _            |  |          | Щ        | _        |          |                    | _                 |  |
|  | 1 107  | Ш            | _            |  |          |          |          |          |                    |                   |  |
|  | 108  | L            |              | $\Box$   |          | Н        |          | _        | _                  | $\dashv$          |  |
|  | 109  | Н            |              | -1   |          |          | _        | _        | _                  | $\dashv$          |  |
|  | 110  | -            |              |  |          | $\vdash$ | _        | _        |                    | $\vdash$          |  |
| <u> </u>   | 111<br>112<br>113                                    | $\vdash$     |              | $\dashv$   | -        | $\vdash$ |          |          |                    | Н                 |  |
|  | 112  | $\vdash$     |              | H  |          | H        |          | $\dashv$ | _                  | $\dashv$          |  |
| $\vdash$   | 114  | Н            | -            | $\vdash$   |          | $\vdash$ |          |          |                    | $\vdash$ $\vdash$ |  |
| <del>                                     </del> | 114<br>115   | $\vdash$     |              | H  |          | $\vdash$ |          |          |                    | $\vdash \vdash$   |  |
| <u> </u>   | 116  | Н            | Н            |  |          | П        | _        |          |                    | $\vdash$          |  |
| $\vdash$   | 116<br>117   | П            |              |  |          |          |          |          |                    |                   |  |
| <u> </u>   | 118  |              |              |  |          |          |          |          |                    |                   |  |
|  | 118<br>119   |              |              |  |          |          |          |          |                    |                   |  |
|  | 120  |              |              |  |          |          |          |          |                    |                   |  |
|  | 120<br>121   |              |              |  |          |          |          |          |                    |                   |  |
|  | 122  |              |              |  |          |          |          |          |                    |                   |  |
|  | 123  |              |              |  |          |          |          |          |                    |                   |  |
|  | 124  | _            |              |  | _        | _        | _        |          |                    |                   |  |
|  | 125  | _            |              |  |          |          |          |          | -                  | Н                 |  |
|  | 122<br>123<br>124<br>125<br>126<br>127<br>128<br>129 | <u> </u>     |              | _  |          | _        | _        | _        | _                  | H                 |  |
|  | 127  | -            |              | <u> </u>   |          | $\vdash$ |          | _        | _                  | Н                 |  |
|  | 120  | -            | _            |  | _        | -        | $\vdash$ | -        |                    | Н                 |  |
| _  | 130  | H            | _            | $\vdash$   | _        | $\vdash$ | -        | -        | $\vdash$           | Н                 |  |
| <u> </u>   | 130<br>131<br>132                                    | $\vdash$     |              |  |          | $\vdash$ |          | -        |                    | Н                 |  |
| _  | 132  | H            |              |  |          | $\vdash$ | $\vdash$ |          | $\vdash$           |                   |  |
|  | 133  | T            | Т            |  | $\vdash$ |          |          |          |                    |                   |  |
|  | 133<br>134   | T            | П            |  |          |          |          |          |                    |                   |  |
|  | 135  |              |              |  |          |          |          |          |                    |                   |  |
|  | 136<br>137   |              |              |  |          |          |          |          |                    |                   |  |
|  | 137  |              |              |  |          | 匚        | $\Box$   |          | $oxedsymbol{oxed}$ | $\Box$            |  |
|  | 138  |              | <u>L</u>     | L_   | <u> </u> | <u></u>  | <u> </u> | L.       | <u> </u>           | _                 |  |
|  | 139  | <del> </del> | <b> </b> _   | <u> </u>   | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u>           | _                 |  |
| <u> </u>   | 140  | $\vdash$     | _            | <b>L</b>   | <u> </u> | 1        | <u> </u> | _        | <u> </u>           | _                 |  |
| <u> </u>   | 141  | $\vdash$     |              | -  | <u> </u> | $\vdash$ | ├—       | <u> </u> | ⊢                  | H                 |  |
| <u> </u>   | 142  | $\vdash$     | $\vdash$     | -  | $\vdash$ | $\vdash$ |          | ⊢        | -                  | -                 |  |
| <u> </u>   | 143  | ╁╌           | <del> </del> | $\vdash$   | ├-       | $\vdash$ | -        | -        | -                  | $\vdash$          |  |
| <del> </del>                                     | 144<br>145   | ⊢            | ├            | -  |          | $\vdash$ | -        | $\vdash$ | $\vdash$           | $\vdash$          |  |
| <u> </u>   | 145  | +-           | $\vdash$     | $\vdash$   | $\vdash$ | $\vdash$ | -        | $\vdash$ | $\vdash$           | H                 |  |
| <u> </u>   | 147  | $\vdash$     | $\vdash$     | $\vdash$   | $\vdash$ | $\vdash$ | -        | $\vdash$ | $\vdash$           | $\vdash$          |  |
| $\vdash$   | 148  | 十            | $\vdash$     | <del>                                     </del> | 一        | $\vdash$ | $\vdash$ | ┢        | $\vdash$           | $\vdash$          |  |
| -  | 149  | +-           | -            | $\vdash$   | -        | 1        | _        | $\vdash$ | $\vdash$           | 1                 |  |
| <u> </u>   | 150  | T            | Н            |  | Ι-       |          | $\vdash$ | T        | $t^-$              | T                 |  |
|  |  |              |              |  |          |          | _        |          |                    |                   |  |